

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A synthetically cyclised conotoxin peptide having an amide cyclised backbone such that the peptide has no free N- or C-~~termini~~ terminus, said conotoxin peptide comprising either 4 cysteine residues which are bonded in pairs to form two disulfide bonds or 6 cysteine residues which are bonded in pairs to form three disulfide bonds.
2. (Currently amended) A The cyclised conotoxin peptide according to claim 1 having an activity associated with the therapeutic treatment of mammals.
3. (Currently amended) A The cyclic conotoxin peptide according to claim 1 which contains or consists of the sequence of amino acids present in a naturally occurring conotoxin peptide.
4. (Currently amended) A The cyclic conotoxin peptide according to claim 3 wherein the naturally occurring conotoxin peptide is ~~selected from~~ MVIA, GVIA, SVIB, SVIA, TVIA, MVIIC, GVIIA, GVIIB, PVIIA, GS, GI, IMI, PNIA, PNIB, SII, MII, GIIIA, GIIIB, GIIIC ~~and or~~ PIIIA.
5. (Currently amended) A The cyclic conotoxin peptide according to claim 1 having three disulphide bonds in the form of a cysteine knot.
6. (Currently amended) A The cyclic conotoxin peptide according to claim 1 comprising a linear conotoxin peptide and a peptide linker, wherein the N- and C- termini of the linear peptide are linked via the peptide linker to form an amide cyclised peptide backbone.
7. (Currently amended) A The cyclic conotoxin peptide according to claim 6 wherein the linear conotoxin peptide moiety is obtained from a naturally occurring conotoxin

peptide and retains the disulphide bond connectivity of the naturally occurring conotoxin peptide.

8. (Currently amended) A The cyclic conotoxin peptide according to claim 6 wherein the peptide linker is from 2 to 15 amino acids in length.

9. (Currently amended) A The cyclic conotoxin peptide according to claim 6 wherein the peptide linker is selected from the group consisting of:

TRNGLPG	SEQ ID NO. 1
TRNG	SEQ ID NO. 2
TRGGLPV	SEQ ID NO. 3, <u>and</u>
TNG	SEQ ID NO. 4

10. (Currently amended) A The cyclic conotoxin peptide according to claim 1 selected from the group consisting of:

<u>CKGKGAKCSRLMYDCCTGSCRSGKCTRNGLPG</u>	SEQ. ID NO. 5
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<u>CKGKGAKCSRLMYDCCTGSCRSGKCTRNG</u>	SEQ. ID NO. 6
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<u>GLPVCKGKGAKCSRLMYDCCTGSCRSGKCTRG</u>	SEQ ID NO. 7
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<u>GCCSNPVCHLEHSNLCTNG</u>	SEQ ID NO. 8,
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and

<u>CCSNPVCHLEHSNLCTNGG</u>	SEQ ID NO. 9
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11. (Currently amended) A process for preparing a the cyclic conotoxin according to claim 1 comprising:

(i) synthesizing an extended linear conotoxin peptide on a solid phase support, said extended linear conotoxin peptide comprising a linear conotoxin peptide having a linker moiety attached to at least one end thereof,

- (ii) cleaving said extended linear peptide from the support
- (iii) cyclising said extended linear conotoxin peptide, and
- (iv) oxidizing said cyclised peptide to form disulphide bonds.

12. (Currently amended) A process for preparing a the cyclic conotoxin according to claim 1 comprising:

- (i) synthesizing an extended linear conotoxin peptide on a solid phase support, said extended linear conotoxin peptide comprising a linear conotoxin peptide having a linker moiety attached to at least one end thereof,
- (ii) cleaving said linear peptide from the solid support,
- (iii) subjecting said extended peptide to conditions such that the peptide folds and forms the required disulphide bonds, and
- (iv) cyclising the folded peptide.

13. (Currently amended) A process for preparing a the cyclic conotoxin according to claim 1 comprising:

- (i) reacting a conotoxin peptide with a linker moiety to form an extended linear conotoxin peptide having said linker moiety attached to one end thereof, and
- (ii) cyclising said extended peptide.

14. (Canceled)

15. (Currently amended) A method of treating a condition or disease associated with abnormal ion channel or nicotinic acetylcholine receptor activity comprising the step of administering a pharmaceutically effective amount of a the cyclic conotoxin peptide according to claim 1 to a mammal.

16. Canceled.

17. (Currently amended) A composition comprising a pharmaceutically effective amount of a the cyclic conotoxin peptide according to claim 1 and a pharmaceutically acceptable carrier or diluent.

18. (Currently amended) A The composition according to claim 17 which is a pharmaceutical composition.

19. (Previously presented) The process of claim 13, the process further comprising the step of oxidizing said extended peptide to form disulphide bonds.

20. (New) The cyclised conotoxin peptide according to claim 1, wherein said conotoxin peptide is an α - or ω -conotoxin peptide.

21. (New) The method of claim 15 wherein said amount is effective for treating pain.

22. (New) The method of claim 15 wherein said amount is effective for treating stroke.

23. (New) The method of claim 15 wherein said amount is effective for treating traumatic brain injury.

24. (New) A method of blocking a voltage-sensitive calcium channel comprising administering an effective amount of a conotoxin peptide according to claim 1 to a mammal.

25. (New) A method of blocking the nicotinic acetylcholine receptor comprising administering an effective amount of a conotoxin peptide according to claim 1 to a mammal.

26. (New) A method of probing an ion channel receptor comprising contacting said ion channel receptor with the cyclic conotoxin peptide according to claim 1; and measuring a biological effect the cyclic conotoxin peptide has on the ion channel receptor.